From: Stevie Wilding/ESC/R3/USEPA/US

Sent: 3/1/2012 5:48:05 PM

To: Rick McMillin/R6/USEPA/US@EPA

CC:

Subject: Re: Ethylene Glycol

Per sample -- there will be two vials. For MS/MSD -- I will request 6 vials.

Each house will have two samples taken (not actually duplicates -- due to treatment systems, so one sample is before treatment and one is after.)

So a total of 2 samples per house which equates to 4 vials per house

Is this clear as mud?

From: Rick McMillin/R6/USEPA/US
To: Stevie Wilding/ESC/R3/USEPA/US

Date: 03/01/2012 05:33 PM Subject: Re: Ethylene Glycol

I think this will be fine. Everyone has gone home so I will double check in the morning. I still need to see how the curve and MDL work went, but I'm confident all is well. I assume you are saying two VOA vials per sample location (duplicates), or 4 VOA vials total per house (two at pump and two in house).

Rick McMillin
Deputy Branch Chief
Region 6 Houston Lab
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c2: 281-415-6819

From: Stevie Wilding/ESC/R3/USEPA/US
To: Rick McMillin/R6/USEPA/US@EPA

Co: Cynthia Caporale/ESC/R3/USEPA/US@EPA, Jennifer Gundersen/ESC/R3/USEPA/US@EPA, Christy Warren/R6/USEPA/US@EPA

Date: 03/01/2012 12:29 PM Subject: Re: Ethylene Glycol

Rick,

The samplers have sent two 40 mL VOA vials to the lab. Is that enough volume for you -- we can request more.

Do you need a formal written request? Four homes will be sampled next week. Each home will be two samples (at pump and in house) and then blanks each day -- so a total of 10 samples. If you have hits -- draft results would be great and final results are a 21 day TAT.

HW-56	3/5/2012 1:30
HW-60	3/5/2012 8:30
HW-62	3/6/2012 8:30
HW-61	3/6/2013 1:30

I will provide the following address to the samplers.

Christy Warren
U.S. EPA Region 6 Laboratory
Sample Control Center
10625 Fallstone Road
Houston, Texas 77099
281-983-2137

Thanks, Stevie

From: Rick McMillin/R6/USEPA/US To: Stevie Wilding/ESC/R3/USEPA/US

Cc: Cynthia Caporale/ESC/R3/USEPA/US@EPA, Jennifer Gundersen/ESC/R3/USEPA/US@EPA, Christy Warren/R6/USEPA/US@EPA

Date: 03/01/2012 09:20 AM Subject: Re: Ethylene Glycol

Great. Our 50ppm standard from last night looks very good, so we are shooting a curve today from 0.5-10 ppm. If that looks good we will look at MDLs and should be ready to go. What size/kind of samples are usually sent for this test?

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From: Stevie Wilding/ESC/R3/USEPA/US
To: Rick McMillin/R6/USEPA/US@EPA

DIM0244013 DIM0244013

Cc: Cynthia Caporale/ESC/R3/USEPA/US@EPA, Jennifer Gundersen/ESC/R3/USEPA/US@EPA, Christy Warren/R6/USEPA/US@EPA

Date: 03/01/2012 07:23 AM Subject: Re: Ethylene Glycol

Rick,

Perfect -- I intended to call you today to clarify my request. These are the two compounds we are unable to do.

From: Rick McMillin/R6/USEPA/US To: Stevie Wilding/ESC/R3/USEPA/US

Cc: Cynthia Caporale/ESC/R3/USEPA/US@EPA, Jennifer Gundersen/ESC/R3/USEPA/US@EPA, Christy Warren/R6/USEPA/US@EPA

Date: 02/29/2012 05:18 PM Subject: Re: Ethylene Glycol

Stevie.

I'm being told we can't do the list in your table at this time.

We should be able to do ethylene glycol and propylene glycol by GC/MS direct injection on a wax column like we did for the Gulf Oil Spill. However we have had troubles with our instrument that we are using so it has taken longer than expected. A standard is running now, so we should know more by morning. I think we should be able to achieve similar detection limits as the contractor lab did, but we are using a MS instead of an FID, so we might not be able to go quite as low. Hopefully we will know tomorrow.

Rick McMillin **Deputy Branch Chief** Region 6 Houston Lab p: 281-983-2107 f: 281-983-2124 c: 832-443-4568 c2: 281-415-6819

From: Stevie Wilding/ESC/R3/USEPA/US To: Rick McMillin/R6/USEPA/US@EPA

Cc: Cynthia Caporale/ESC/R3/USEPA/US@EPA, Jennifer Gundersen/ESC/R3/USEPA/US@EPA

Date: 02/29/2012 10:28 AM Subject: Re: Ethylene Glycol

Rick,

This is great. Right now we have an ethylene glycol RLs at 10 ppm with the labs reporting down to their MDL (around 1-5ppm). The table below is the list we are currently analyzing on our LC/MS/MS -- but we currently are unable to do ethylene glycol or propylene glycol. We get an unidentified peak in some of the samples at the same parent mass as 2-methoxylethanol. We believe this is propylene glycol. Can R6 do all of the glycols on our list including propylene and what levels can you obtain?

2-Methoxyethanol	Water	100	ug/L
2-Butoxyethanol	Water	10	ug/L
Di ethylene glycol	Water	25	ug/L
Tri ethylene glycol	Water	25	ug/L
Tetra ethylene glycol	Water	25	ug/L

Stevie Wilding, Chemist **Environmental Science Center** Analytical Services Branch (410) 305-2606

"Our lives begin to end the day we become silent about things that matter."

-- Martin Luther King, Jr. --

From: Rick McMillin/R6/USEPA/US To: Stevie Wilding/ESC/R3/USEPA/US Date: 02/29/2012 10:38 AM

Subject: Re: Ethylene Glycol

Stevie,

We have the column installed and ready to go. Ken Stevens is making standards to run a curve. If it looks good we will be good to go. What reporting limit is needed for this test?

Rick McMillin **Deputy Branch Chief** Region 6 Houston Lab p: 281-983-2107 f: 281-983-2124 c: 832-443-4568 c2: 281-415-6819

From: Stevie Wilding/ESC/R3/USEPA/US To: Rick McMillin/R6/USEPA/US@EPA

Date: 02/27/2012 04:59 PM Subject: Re: Ethylene Glycol

DIM0244013 DIM0244014 The contract lab did analysis with GC/FID and did no confirmation analysis. Detects were very low -- but we did not feel confident with the results.

From: Rick McMillin/R6/USEPA/US To: Stevie Wilding/ESC/R3/USEPA/US Date: 02/27/2012 04:37 PM

Subject: Re: Ethylene Glycol

Stevie,

I would like to help. However, timing isn't good for us, we have Nick out this week and Diane isn't back for a couple of weeks. However, I have one chemist who might have time to get the method back up and try out ethylene glycol, but he is out for the day. I will talk to him in the morning and see what we can do. Any ideas why the contract lab didn't provide useful data? Reporting limit too low or bad QC?

Rick McMillin **Deputy Branch Chief** Region 6 Houston Lab p: 281-983-2107 f: 281-983-2124 c: 832-443-4568 c2: 281-415-6819

From: Stevie Wilding/ESC/R3/USEPA/US To: Rick McMillin/R6/USEPA/US@EPA

Date: 02/27/2012 03:17 PM Subject: Re: Ethylene Glycol

Rick,

We have another round of sampling to occur for 4 homes in Dimock next week. Sorry for the late notice -- but the contracted results for ethylene glycol did not provide useful data. So I wanted to ask again if Region 6 can or would be willing to provide support for this analysis. The number of samples is should be about 10 -- but could go up to and continue into the following week.

Stevie Wilding, Chemist **Environmental Science Center** Analytical Services Branch (410) 305-2606

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From: Rick McMillin/R6/USEPA/US To: Stevie Wilding/ESC/R3/USEPA/US

Date: 01/19/2012 04:39 PM Subject: Re: Ethylene Glycol

Thanks Stevie,

We really want to help and feel bad about the circumstances. If there is some other way we can be of assistance please let us know.

Rick McMillin **Deputy Branch Chief** Region 6 Houston Lab p: 281-983-2107 f: 281-983-2124 c: 832-443-4568 c2: 281-415-6819

From: Stevie Wilding/ESC/R3/USEPA/US To: Rick McMillin/R6/USEPA/US@EPA Cc: Adam Molnar/ESC/R3/USEPA/US@EPA

Date: 01/19/2012 03:33 PM Subject: Re: Ethylene Glycol

Rick,

Thanks for the update. Given the urgency of this sampling event -- we will probably contract this out.

Stevie

From: Rick McMillin/R6/USEPA/US To: Stevie Wilding/ESC/R3/USEPA/US Date: 01/19/2012 04:23 PM

Subject: Ethylene Glycol

Stevie,

My boss David Neleigh asked me to contact you about the ethylene glycol samples. I will try to give you a call after I send this message in case you are still in the office.

DIM0244013 DIM0244015 We are willing to try to set up the method for ethylene glycol using the same method we used for propylene glycol in the Gulf Oil Spill, which was a direct inject GC/MS on a wax column. The problem is that Diane Gregg, the person who set up this method for us, is out until the middle of March and we have a large number of samples in house right now. We should be able to get the method going without her, but right now feel that the earliest we could take samples would be Feb 13th, given our current commitments. Let us know if you think that would work for you, or if we really need to look at taking more extreme measures to fit this in.

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DIM0244013 DIM0244016